

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SOLAREEDGE TECHNOLOGIES LTD.,
Petitioner,

v.

SMA SOLAR TECHNOLOGY AG,
Patent Owner.

IPR2019-01226
Patent 7,816,631 B2

Before LYNNE H. BROWNE, HYUN J. JUNG, and
RICHARD H. MARSCHALL, *Administrative Patent Judges*.

BROWNE, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. *Background and Summary*

SolarEdge Technologies Ltd. (“Petitioner”) filed a Petition (Paper 2, “Pet.”), requesting institution of an *inter partes* review of claims 1–18 of U.S. Patent No. 7,816,631 B2 (Ex. 1301, “the ’631 patent”). SMA Solar Technology AG (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”).

Under 35 U.S.C. § 314, an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” For the reasons given below, upon consideration of the Petition, the Preliminary Responses, and related briefing, we exercise our discretion under 35 U.S.C. § 314(a) and deny institution of an *inter partes* review.

B. *Real Parties in Interest and Related Matters*

Petitioner states that the “real party-in-interest is Petitioner SolarEdge Technologies Ltd.” Pet. 1. Patent Owner states that the “real party-in-interest is SMA Solar Technology AG.” Paper 3, 2.

The parties do not identify any related litigation matters in the United States. Pet. 1; Paper 3, 2. The parties indicate that a European counterpart to the ’631 patent has been asserted in Germany against Petitioner. *Id.* Petitioner also indicates that there are four other petitions challenging the ’631 patent based on different combinations of references. Pet. 13. The ’631 patent is the subject of IPR2019-01223, IPR2019-01224, IPR2019-01225, and IPR2019-01227.

C. *The '631 Patent*

The '631 patent issued October 19, 2010, from an application filed June 22, 2005, which claims priority to foreign applications filed on June 24, 2004. Ex. 1301, codes (22), (30), (45), 1:7–9; *see also* Pet. 6 (stating that the “earliest entitled priority date for the '631 patent claims is . . . June 22, 2005”).

The '631 patent relates to “an inverter with a housing having a cooling unit for cooling the electronic and/or electric components of the inverter.” Ex. 1301, 1:13–15. The '631 patent describes problems with prior art inverter housings having vents and fans that allow contamination to enter the housing, which in turn causes failures of the inverter. *Id.* at 1:21–29. The '631 patent seeks to address these problems by providing an inverter housing with two chambers having different characteristics. *Id.* at 1:40–50.

The '631 patent discloses housing 1 that includes partition wall 6 that divides housing 1 into chambers 7 and 8. *Id.* at 2:22–23. Partition wall 6 receives electronic and electric components 5 that project into chamber 7. *Id.* at 2:24–26. Cooling bodies 4 disposed on components 5 project into chamber 8. *Id.* at 2:27–30. The thermal connection between cooling body 4 and component 5 allows heat transfer from component 5 to cooling body 4. *Id.* at 2:32–35.

The '631 patent emphasizes the different characteristics of chambers 7 and 8, and the different electrical components contained in each chamber. Chamber 7 includes components with low power dissipation, with no cooling or ventilation provided in the chamber. *Id.* at 2:49–52. Chamber 7 has a “higher protection grade” than chamber 8 “in order to make certain that the electric or electronic components are protected against dirt and

moisture.” *Id.* at 2:43–46. Chamber 8 includes fan 10 and vent slots 3 to cool the chamber, and components such as a “transformer with a high protection grade that makes them insensitive to contamination.” *Id.* at 2:36–41.

D. Challenged Claims

The ’631 patent has 18 claims, all of which Petitioner challenges. Of those, claims 1, 9, and 17 are independent. Claims 2–8 depend from claim 1; claims 10–16 depend from claim 9; and claim 18 depends from claim 17.

Claim 1 is reproduced below with indentations added for readability.

1. An inverter with a housing having a cooling unit for cooling electronic components and electrical components of the inverter mounted in said housing, said housing of the inverter comprising

first and second chambers, said first and second chambers being separated by a wall and configured to receive in the two chambers the electronic components and the electrical components said electronic components and electrical component being cooled by the cooling unit,

said electronic components being sensitive to dirt and humidity and being located on one side of the wall in said first chamber which is closed and which has a higher IP grade rating for protection to humidity and dust than the electrical components mounted in said second chamber,

heat sink cooling fins which are located on the other side of the wall in the said second chamber which is open to ambient atmosphere, said heat sink including heat exchange structure extending through said wall and being thermally conductively coupled to said electronic components in said first chamber and to said cooling fins in said second chamber and at least one of a choke and a transformer also being located in said second chamber,

said electrical components in said second chamber being less sensitive to humidity and dirt than said electronic components in said first chamber, and

said second chamber having a cooling system including said cooling unit positioned at one end of said second chamber for cooling both said cooling fins and said electrical components.

Ex. 1001, 2:55–3:13.

E. Prior Art and Asserted Grounds

Petitioner asserts that claims 1–18 would have been unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §¹	Reference(s)/Basis
1–18	103	Katooka ²
1–18	103	Katooka, Brinkman ³
1–8, 13, 17, 18	103	Katooka, Rodi ⁴
1–8, 13, 17, 18	103	Katooka, Brinkmann, Rodi

All references to Brinkmann and Rodi in this Decision are to their certified translations filed as Exhibits 1305 and 1308, respectively.

Petitioner also relies on a Declaration of Jonathan R. Wood, Ph.D. Ex. 1312 (“Wood Declaration”). Patent Owner relies on a Declaration of Yogendra Joshi, Ph.D. Ex. 2301 (“Joshi Declaration”).

¹ The relevant sections of the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, 125 Stat. 284 (Sept. 16, 2011), took effect on March 16, 2013. Because the application from which the ’631 patent issued was filed before that date, our citations to Title 35 are to its pre-AIA version.

² US 5,831,240, issued November 3, 1998 (Ex. 1311, “Katooka”).

³ DE 296 07 354 U1, published August 22, 1996 (Ex. 1304; Ex. 1305 (certified translation), “Brinkmann”).

⁴ EU 0 297 308 A2, published April 1, 1989 (Ex. 1307; Ex. 1308 (certified translation), “Rodi”).

II. 35 U.S.C. § 314(a)

A. *The Parties' Positions*

Petitioner filed five petitions on the same day, each challenging claims 1–18 of the '631 patent. See IPR2019-01223 through -01227. Patent Owner requests that the Board exercise its discretion under 35 U.S.C. § 314(a) and deny institution of, at least, four of the five petitions filed against the '631 patent. Prelim. Resp. 53–58 (quoting Office Trial Practice Guide Update referenced at 84 Fed. Reg. 33,925 (July 16, 2019) (“July 2019 Trial Practice Guide”), at 26). Patent Owner contends that “the special circumstances highlighted to justify multiple IPRs in the July 2019 Trial Practice Guide do not apply in this case,” and that “Petitioner has not provided any substantial argument why more than one petition is necessary.” *Id.* at 54. Patent Owner also contends that the five, concurrently-filed petitions against the '631 patent “is no less abusive to the Patent Owner than the filing of multiple serial, duplicative and redundant petitions that the Board has sought to curb.” *Id.* at 55.

According to Patent Owner, the five pending petitions “differ only in immaterial respects.” Prelim. Resp. 55. Patent Owner asserts that “the petitions cite substantially the same references (with small variations) and the content and text of the different petitions overlap up to about 60%.” *Id.* In support of this assertion, Patent Owner notes Petitioner’s observation that “Shinohara, Rodi, Katooka and Liu disclose a two-chambered housing for cooling electronics.” *Id.* (citing Pet. 19).⁵ Given this statement by

⁵ We note that Katooka and Rodi are relied upon in the challenges set forth in this Petition, whereas Shinohara and Liu are asserted in one or more of the other related Petitions.

Petitioner, Patent Owner asserts further that “Petitioner effectively admits that Shinohara, Rodi, Katooka and Liu are redundant and overlapping.” *Id.* Patent Owner makes similar assertions regarding the redundancy of Kramer, Brinkmann, and Birger. *Id.* at 55–56.

Patent Owner further argues that denying four of the five petitions would be more efficient, lessen the burden on the Board and Patent Owner, and address fairness and timing concerns. Prelim. Resp. at 56–57. Patent Owner additionally notes similarities between the five petitions filed against the ’631 patent and the petitions filed in *Comcast Cable Communications, LLC v. Rovi Guides, Inc.*, IPR2019-00279 through IPR2019-00283. *Id.* at 57. Patent Owner contends that the similarities support its position that we should institute on less than all of the petitions.

We issued an Order asking Petitioner to rank its five petitions and to identify any differences between the petitions. Paper 7. Petitioner filed its ranking, requesting that we consider this Petition fourth among the five petitions. Paper 8, 1 (“Petitioner’s Ranking”). In its Response to Petitioner’s Ranking, Patent Owner again requests that we institute a trial as to no more than one of the five petitions. Paper 9, 1, 5.

Petitioner argues that the circumstances at issue here justify institution of multiple *inter partes* reviews of the same claims based on material differences between the challenges in each proceeding. Paper 8, 2–5. Petitioner, however, does not explain why Katooka, the primary reference at issue in this Petition, is not redundant of the primary references in the related proceedings. *Id.* Specifically, regarding claim 1, Petitioner states that Katooka, like Shinohara, Rodi, and Liu “disclose two-chambered housings for cooling electronics.” *Id.* at 2. Petitioner then states that Katooka, like

Shinohara and Liu teaches “that the housing is for an inverter.” *Id.* at 3. Next, Petitioner states that Katooka, like Shinohara and Rodi “suggest[s] a heat exchange structure, separate from the wall, extending through the wall” and that “Rodi and Katooka explicitly show a pass-through in the wall between the chambers.” *Id.* at 4. Petitioner states further that “[t]o the extent that [claim 1] requires having both a transformer and a choke,” Katooka, Rodi, and Liu “describe having a choke in the second chamber.” *Id.* Turning to dependent claims 6, 8, 16, and 18, Petitioner again groups Katooka with the other primary references without explaining why Katooka is not redundant. *Id.* at 4–5.

In its Response to Petitioner’s Ranking and accompanying argument, Patent Owner contends that “Petitioner effectively admits that Shinohara, Rodi, Katooka and Liu are redundant and overlapping by asserting that each shows a two-chambered housing with a separation wall for cooling electronics.” Paper 9, 2. Patent Owner asserts further that “if the Board construes the term housing as a housing in which an inverter can be placed (with many other non-inverter related components) then all five asserted [primary] references are redundant and not materially different because the inverter can be placed in all of them.” *Id.* at 3. Conversely, according to Patent Owner, if “the Board construes the term housing as a housing of the inverter in the sense of the ’631 Patent then each of the five asserted references fails for the same reason – because none of them shows an actual inverter housing.” *Id.* Thus, Patent Owner asserts that “[u]nder either claim construction, the petitions are not materially different or likely to result in a materially different outcome.” *Id.*

B. Analysis

The July 2019 Trial Practice Guide addresses the issue we face here—whether to institute on more than one concurrently-filed petition addressing the same patent:

Based on the Board’s prior experience, one petition should be sufficient to challenge the claims of a patent in most situations. Two or more petitions filed against the same patent at or about the same time . . . may place a substantial and unnecessary burden on the patent owner and could raise fairness, timing and efficiency concerns. *See* 35 U.S.C. § 316(b). . . .

Nonetheless, the Board recognizes that there may be circumstances in which more than one petition may be necessary, including, for example, when the patent owner has asserted a large number of claims in litigation or when there is a dispute about priority date requiring arguments under multiple prior art references. In such cases two petitions by a petitioner may be needed, although this should be rare. Further, based on prior experience, *the Board finds it unlikely that circumstances will arise where three or more petitions by a petitioner with respect to a particular patent will be appropriate.*

July 2019 Trial Practice Guide, 26 (emphasis added).

Concurrent with this Decision, we institute *inter partes* review in two of the five petitions filed by Petitioner, the petitions that the Petitioner ranked first and second, IPR2019-01223 (“the -01223 case”) and IPR2019-01224 (“the -01224 case”). Paper 8, 1. Accordingly, as to this Petition, we consider whether to institute *inter partes* review based on a *third* petition challenging the same claims of the same patent. As the July 2019 Trial Practice Guide states, one petition generally suffices, and two petitions may be appropriate in certain circumstances, but it is “unlikely” that three or more petitions will ever be appropriate. July 2019 Trial Practice Guide, 26.

To the extent that some circumstances may justify instituting a third *inter partes* review challenging the same patent based on petitions filed on or about the same date, this is not that case.

Several reasons lead us to this conclusion. First, we are not persuaded that material differences exist between this Petition, based on Katooka, Brinkmann, and Rodi, and the petitions filed in the -01223 case (based on Shinohara and Brinkmann) and the -01224 case (based on Rodi and Brinkmann). See IPR2019-01223, Paper 2 at 18; IPR2019-01224, Paper 2 at 15. Petitioner argues that the petitions differ in how they approach the “two-chambered housing” and “inverter” limitations, but we do not agree with Petitioner’s characterization of those differences. Petitioner’s Ranking, 2–3. Given Petitioner’s characterization of Shinohara and Katooka as presenting similar allegations, we view the argument that Shinohara discloses a two-chambered inverter housing in the -01223 case as sufficient to address the issue, without the need to further consider whether Katooka discloses this limitation as asserted in this Petition.

Second, the challenges in this Petition, simply substitute Katooka for Shinohara presenting essentially the same challenges as set forth in grounds 1 and 3 of the -01223 case. Pet. 15. Petitioner does not point out any meaningful differences between the references that distinguish these challenges. We view the petition in the -01223 case as sufficient to address the issues raised by these challenges.

Third, no special circumstances, such as the examples provided in the July 2019 Trial Practice Guide, justify a third *inter partes* review of the same patent. July 2019 Trial Practice Guide, 26. The ’631 patent contains a reasonable number of claims (18), no claims have been asserted in district

court litigation, and there does not appear to be any dispute, at this time, as to the priority date of the '631 patent. *See* Prelim. Resp. 54.

On this record, we view an *inter partes* review based on the instant Petition as inconsistent with the efficient administration of the Office because Petitioner has failed to establish sufficient differences between the grounds of this Petition when compared to the challenges already before us in the -01223 case. In view of the foregoing, we exercise our discretion under 35 U.S.C. § 314(a) to deny institution of review in this proceeding.

III. CONCLUSION

For the foregoing reasons, based on our assessment of this case in relation to the other concurrently-filed petitions, we exercise our discretion under 35 U.S.C. § 314(a) to deny the instant Petition requesting *inter partes* review of claims 1–18 of the '631 patent.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is denied, and no trial is instituted in this case.

FOR PETITIONER:

Frederic Meeker
John R. Hutchins
Michael S. Cuvillo
John H. Curry
Bradley J. Van Pelt
Zachary Getzelmann
BANNER & WITCOFF, LTD.
fmeeker@bannerwitcoff.com
jhutchins@bannerwitcoff.com
mcuvillo@bannerwitcoff.com
jcurry@bannerwitcoff.com
bvanpelt@bannerwitcoff.com
zgetzelman@bannerwitcoff.com

FOR PATENT OWNER:

Steven H. Slater
Michael Kucher
John D. Koetter
SLATER MATSIL, LLP
sslater@slatermatsil.com
mkucher@slatermatsil.com
jkoetter@slatermatsil.com

Thomas G. Eschweiler
ESCHWEILER & POTASHNIK, LLC
teschwiler@epiplaw.com